

The present invention relates to a method of deposition of a silicon layer on a single-crystal silicon substrate, so that the silicon layer is a single-crystal layer, but of different orientation than the substrate, including the steps of defining a window on the substrate; creating inside the window interstitial defects with an atomic proportion lower than one for one hundred; and performing a silicon deposition in conditions generally corresponding to those of an epitaxial deposition, but at a temperature lower than 850°C.